

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

1. (Currently amended) In a plasma processing system, a method of removing a set of particles including aluminum chloride from a set of structures including yttrium oxide, comprising the following steps in the sequence set forth:

 exposing said set of structures to a first solution including an oxidizer for a first period;

 removing said set of structures from said first solution;

 exposing said set of structures to a second solution including a ketone reagent for a second period;

 removing said set of structures from said second solution; and

rinsing said set of structures with de-ionized water and subsequently drying said set of structures with a filtered gas;

 mechanically rubbing a surface of said set of structures with a third solution including a first set of acids for a third period, said third period being about 1 minute; ~~and minute, wherein said third solution is configured to be non-reactive with respect to said surface of said set of structures including said yttrium oxide during said mechanical rubbing~~

rinsing said set of structures with said de-ionized water and subsequently drying said set of structures with said filtered gas.

2. (Previously presented) The method of claim 1, further including the steps of:

 exposing said set of structures to a fourth solution including a second set of acids for a fourth period, said fourth period being about 10 minutes; and

 exposing said set of structures to a fifth solution including a first set of alkalines for a fifth period.

3. (Canceled)
4. (Previously presented) The method of claim 1, wherein said first set of acids includes at least HF, HNO₃, and H₂O.
5. (Canceled) The method of claim 4, further including drying said set of structures with a filtered inert gas.
6. (Currently amended) The method of ~~claim 5~~ claim 1, wherein said filtered inert gas comprises nitrogen.
7. (Original) The method of claim 2, wherein said step of exposing said set of structures to said second solution for a second period further includes cleaning said set of structures ultrasonically.
8. (Original) The method of claim 2, wherein after said step of exposing said set of structures in said second solution for a second period, said set of structures are rinsed and mechanically rubbed with an alcohol.
9. (Canceled) The method of claim 2, wherein said step of removing said set of structures from said second solution further includes rinsing said set of structures with de-ionized water.
10. (Canceled) The method of claim 9, further including drying said set of structures with a filtered inert gas.
11. (Canceled) The method of claim 10, wherein said filtered inert gas comprises nitrogen.
12. (Canceled) The method of claim 11, wherein a step of removing said set of structures from said third solution further includes rinsing said set of structures with de-ionized water.

13. (Canceled) The method of claim 12, further including drying said set of structures with a filtered inert gas.
14. (Canceled) The method of claim 13, wherein said filtered inert gas comprises nitrogen.
15. (Currently amended) The method of claim 2, wherein a step of removing said set of structures from ~~said forth~~ said fourth solution further includes rinsing said set of structures with de-ionized water.
16. (Original) The method of claim 15, further including drying said set of structures with a filtered inert gas.
17. (Original) The method of claim 16, wherein said filtered inert gas comprises nitrogen.
18. (Previously presented) The method of claim 11, wherein a step of removing said set of structures from said fifth solution further includes rinsing said set of structures with de-ionized water.
19. (Original) The method of claim 15, further including drying said set of structures with a filtered inert gas.
20. (Original) The method of claim 16, wherein said filtered inert gas comprises nitrogen.
21. (Original) The method of claim 2, wherein said oxidizer comprises H₂O₂.
22. (Canceled) The method of claim 2, wherein said first solution comprises H₂O₂.

23. (Previously presented) The method of claim 22, wherein said H_2O_2 comprises from about 10% to about 30% of said first solution.
24. (Previously presented) The method of claim 22, wherein said H_2O_2 comprises from about 20% to about 30% of said first solution.
25. (Previously presented) The method of claim 22, wherein said H_2O_2 comprises about 30% of said first solution.
26. (Original) The method of claim 2, wherein said first period comprises 30 minutes.
27. (Previously presented) The method of claim 2, wherein said ketone reagent comprises acetone.
28. (Original) The method of claim 2, wherein said second period comprises 5 minutes.
29. (Previously presented) The method of claim 2, wherein said third solution comprises H_2O_2 .
30. (Original) The method of claim 2, wherein said first set of acids comprises HF.
31. (Original) The method of claim 30, wherein said HF comprises from about 2% to about 33% of said third solution.
32. (Original) The method of claim 30, wherein said HF comprises from about 2% to about 25% of said third solution.
33. (Original) The method of claim 30, wherein said HF comprises of about 2% of said third solution.

34. (Withdrawn) The method of claim 2, wherein said first set of acids comprises HNO_3 .

35. (Withdrawn) The method of claim 34, wherein said HNO_3 comprises from about 2% to about 33% of said third solution.

36. (Withdrawn) The method of claim 34, wherein said HNO_3 comprises from about 2% to about 25% of said third solution.

37. (Withdrawn) The method of claim 34, wherein said HNO_3 comprises of about 2% of said third solution.

38. (Original) The method of claim 2, wherein said third period comprises 1 minute.

39. (Previously presented) The method of claim 2, wherein said third solution comprises H_2O .

40. (Original) The method of claim 2, wherein said second set of acids comprises CH_3COOH .

41. (Previously presented) The method of claim 40, wherein said CH_3COOH comprises from about 2% to about 10% of said fourth solution.

42. (Previously presented) The method of claim 40, wherein said CH_3COOH comprises from about 2% to about 6% of said fourth solution.

43. (Previously presented) The method of claim 40, wherein said CH_3COOH comprises of about 4% to about 5% of said fourth solution.

44. (Previously presented) The method of claim 2, wherein said fourth period is about 10 minutes.

45. (Canceled)

46. (Original) The method of claim 2, wherein said first set of alkalines comprises NH_4OH .

47. (Original) The method of claim 46, wherein said NH_4OH comprises from about 8% to about 33% of said fifth solution.

48. (Original) The method of claim 46, wherein said NH_4OH comprises from about 6% to about 33% of said fifth solution.

49. (Original) The method of claim 46, wherein said NH_4OH comprises of about 25% of said fifth solution.

50. (Previously presented) The method of claim 2, wherein said fifth solution comprises H_2O_2

51. (Original) The method of claim 50, wherein said H_2O_2 comprises from about 8% to about 33% of said fifth solution.

52. (Original) The method of claim 50, wherein said H_2O_2 comprises from about 6% to about 33% of said fifth solution.

53. (Original) The method of claim 50, wherein said H_2O_2 comprises of about 25% of said fifth solution.

54. (Previously presented) The method of claim 2, wherein said fifth period is about 10 minutes.

55. (Withdrawn) In a plasma processing system, a method of removing a set of particles from a set of structures including yttrium oxide, comprising:

- exposing said set of structures to a first solution including a ketone reagent for a first period;
- removing said set of structures from said first solution;
- exposing said set of structures to a second solution including an oxidizer for a second period;
- removing said set of structures from said second solution; and
- mechanically rubbing a surface of said set of structures with a third solution including a first set of acids for a third period.

56. (Withdrawn) The method of claim 55, further including the steps of:

- exposing said set of structures to a fourth solution including a second set of acids for a fourth period; and
- exposing said set of structures to a fifth solution including a first set of alkalines for a fifth period.

57. (Withdrawn) In a plasma processing system, a method of removing a set of particles from a set of structures including yttrium oxide, comprising:

- exposing said set of structures to a first solution including an oxidizer for a first period;
- exposing said set of structures to a second solution including a first set of alkalines with said oxidizer for a second period;
- removing said set of structures from said second solution; and
- mechanically rubbing a surface of said set of structures with said third solution including a first set of acids for a third period.

58. (Withdrawn) The method of claim 57, further including the step of exposing said set of structures to a solution including a second set of acids for a fourth period.